THE

FAMILY LYCEUM.

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DESIGNED FOR

Instruction and Entertainment,

AND ADAPTED TO

FAMILIES, SCHOOLS AND LYCEUMS.

Vol. I.

CONDUCTED BY JOSIAH HOLBROOK.

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VOL. I. BOSTON, SATURDAY, JULY 28, 1832. NO. 1.

Prospectus OF THE FAMILY LYCEUM.

KNOWLEDGE can do its perfect work nowhere but in the family. Universities, Academies, Schools, Churches, Halls of Science, and of Legislation, are important sources of knowledge; but if the streams which issue from them fall short of the family — if they fail to enlighten, animate, cheer and bless the family board, collected around the fireside, the table or in the social circle — they leave undone the great object for which they were designed. And without a reciprocal and corresponding arrangement of the smaller and more familiar, but not less important or dignified institutions of society, those of higher and more imposing titles may be used to oppress, and not to bless mankind. The latter are the ordinances of men; the former are the ordinances of heaven. The one class is founded in the immutable and eternal nature of things, of principles, affection; the other, to some extent, in the changing notions, and sometimes in the whims, the caprices, and, lamentable to say, the unholy ambition of men.

The titles of husband, wife, parent, child, mother, daughter, father, son, sister, brother, are more endearing to the kind heart, more animating to the mind and soul of a philanthropist, more elementary in the speculations of the philosopher, more effective in the arrangements of the political economist, and more important in the views of the statesman and patriot, than those of nation, state, legislature, church, university, college, school, or than all of them put together.

It matters but little how brilliant or intense is the light around our dwellings, if there is nothing but darkness within. It is but a poor consolation to the soul, to witness the utmost peace, cheerfulness and beauty in the elements and actions around, while there is disturbance, commotion, and angry passions within. It is of little consequence, to have our country studded with colleges and churches, of the most costly and splendid architecture, rendered still more imposing by an array of professors, doctors and reverends, except as they produce intelligence, virtue or religion among neighbors and members of the same family. Indeed, except for that, they only tend to render darkness still more visible, vice still more deformed, and oppression still more cruel and unrelenting. Even the common school and village Lyceum are liable to miss their aim, and loose their object, from the want of some medium of action and re-action, some channel of kindly reciprocal feeling and influence, between them and the more social circles, especially in the family board.

It is under such views, strongly presented to his mind, and under such feelings deeply felt, that the subscriber proposes to send a weekly messenger (he hopes) of useful knowledge and kindly sentiments to such families as may be disposed to receive it.

His aim will be, to select such materials from the great store-house of nature — such experiments from nature's great laboratory — to present things, principles, operations, the laws and results of physical, intellectual and moral science—as shall be the most highly entertaining and the most permanently and extensively useful.

As, with the deep and all-pervading impulse for the diffusion of knowledge, now on a rapid march through our country and globe, the institutions to promote it are every day becoming more the objects of popular favor and general interest, the entertainment and instruction of the family circle cannot be promoted in the highest degree, without an endeavor to keep up and forward the mutual and reciprocal relations and actions between that and the larger social and literary institutions designed to enliven, strengthen, and to beautify it, the Family Lyceum will aim to furnish useful materials for every *Village Lyceum* and every *Common School*, and hopes to find its way into the hands of a great portion of the teachers and the conductors and friends of Lyceums throughout the country. If it could in a considerable degree promote a co-operation between parents and teachers—if it could do something towards promoting a general sentiment in the community that common schools, especially, were the property of every individual—that their interest and prosperity are the interest and prosperity of our nation, and of every member of our nation—a high and important point will be gained. If schools are viewed in their true nature, as intellectual and moral laboratories, not merely as places of instruction, but of bringing into operation the powers of mind, and by those operations to develope the principles, the laws of mind and heart, they must be as much more interesting than the chemist's laboratory, as mind is more interesting and more dignified than matter, as eternity is more vast and more enduring than time.

As the prominent object of the Weekly Journal now offered to the friends of knowledge, the friends of their country, and the friends of their race, is to furnish such materials as will be entertaining, instructive, and permanently useful to all classes of the community, it will be deemed expedient and necessary to introduce into its columns a large variety of subjects, and resort to various modes of treating them. To have under view, and to put under contribution, as far as practicable, the great fields of science and of art, with the hope that such selections may be made from them as will be found acceptable and grateful to declining age and sprightly youth, to the parent and child, to the teacher and the taught, to the man of business and the man of leisure, to the student and mechanic, the philosopher and farmer, to both sexes, and all classes and ages.

Nor, if viewed aright, can this seem impracticable. For however the members of the human family, of the rational kingdom of God, scattered over the earth, may differ in their situations, circumstances, taste, powers, pursuits, objects, as intellectual and moral beings, they have and must have, many things in common. There are a few great principles and motives of action, which are and forever will be the same, in every being possessed of mind and heart, whether he be a child of larger or smaller growth, whether he breathe the atmosphere of America or Europe, whether he be reared up a Christian or Mahometan, whether he has received the polish of refined society, or be a child of nature, roaming through his native forests, whether he be passing along unobserved in the humble walks of life, or seated upon a throne or in the chair of state, whether he be a freeman or a slave.

It is the nature of mind to be interested in actions of mind, and of things around it. It is the nature of heart to act on heart, sometimes for evil, sometimes for good. The relations and actions of mind on mind and heart on heart, are more various, more powerful, and immensely more effective and vast in their results, than matter on matter. Consequently it is both the interest and the pleasure of every mind, to be acquainted with itself—with its powers, its propensities, its restraints, its prospects, its hopes, its destiny—how it can act on other minds, and strike the chords of other hearts so as to vibrate harmoniously and into eternity.

Besides the laws and operations of mind and heart on each other, every being possessing them, is or ought to be interested in their relation to matter, and of course with matter which acts upon them. Every one who breathes the air, is almost unpardonable, if he remain entirely ignorant of the substance so curiously and wisely fitted, not only to his lungs, but to his whole being, affecting not only himself but everything around him.

No one who applies to his use a drop of water, is excusable for passing unnoticed, the immensely important and the infinitely varied operations of that material which fills the deep, enriches and beautifies our globe, and is diffused through our earth and air.

Not only mind and matter, and their separate and mutual relations and actions, but the arts of civilized life resulting from their relations and operations—those arts which provide our food, our comfort, our advancement and our elevation in the scale of being, must be of common interest to every member of civilized society, to every man, woman and child.

As a means, therefore, of rendering the Family Lyceum, in the highest degree a pleasant companion in the family circle, not only the fundamental principles of science will be presented in the most inviting form possible, but the principles and the operations of the useful arts will also find a place in its columns.

It is the hope, and almost the confidence of the undersigned, that by presenting to the public in weekly columns, such subjects of useful knowledge as are of the deepest and most common interest, he may furnish something to the family, the school and the Village Lyceum, which will aid them in their mutual efforts and high and holy objects. He will give his best efforts, with the constant assistance of one or two others, and the occasional aid of numerous persons who have generously offered it, to render the weekly journal, which he now offers to the lovers and friends of knowledge, worthy of becoming the companion, as it will aim to be the friend of every parent, teacher and child, and of every person engaged in the industrious and practical pursuits in life—of every individual who wishes for the improvement of his mind, the cultivation of his heart, and the advancement and elevation of himself or fellow beings in the great and glorious cause of intellectual attainments and moral dignity.

JOSIAH HOLBROOK.

COMMON THINGS.

HEAT.

HEAT is more common, and more universally diffused, than any other substance connected with our earth. Every particle of air, water, earth, metals, every tree and leaf, every quadruped, fish or insect, contains more or less heat. And various bodies feel cold, not because they have no heat, but because they have less than our bodies, and therefore take it from them. Most bodies contain heat stored up within them, which is not perceptible to our senses, and may frequently be brought out and rendered sensible. Water which is even cold to the hand, when mixed with three times its quantity of sulphuric acid, is rendered more than boiling hot. The heat is thrown out of the water, because it becomes more solid than before, and cannot retain all the heat it had in store. If water be mixed with lime, and cause it to slack, a portion of it becomes as solid as the lime itself, and of course can retain but a small quantity of the heat it had when liquid, and consequently throws off, or renders sensible an intense heat, and sometimes sets on fire ships or other vessels which contain it.

A piece of iron, which does not feel hot to the hand, may be made red hot, by giving it upon an anvil, a few quick and smart blows, which press out the insensible heat and render it sensible.

The air contained in a fire syringe, by a sudden compression, may be made to throw off heat enough to set fire to tinder, or a piece of cotton prepared for the purpose.

The friction of machinery, and of the limbs of trees, sometimes brings out so much insensible or latent heat, and renders it sensible, as to throw a manufactory or forest into a conflagration.

Although many bodies are not hot, but intensely cold, when tested by our senses, they may still be rendered more cold, or made to give up heat, which is proof that they contain it. And it is supposed that every particle of matter from the highest point in the atmosphere, to the centre of the earth, and even every atom of matter in other worlds and other systems, contains a portion of heat, to whatever degree of cold it may be reduced.

Heat is not only common and almost universal in its existence, but is scarcely less so in its application. Being deprived, during the winter, of a portion of the heat which the sun sends to us in rich abundance during the summer, chills our earth and locks it up in frost; and but for a seasonably returning spring, would cease to afford sustenance either to the animal or vegetable creation. If he should withhold, even but a portion of his heat from our earth for a single year, it would present one vast and dismal gloom, without a man, an animal or plant living upon its surface.

EVAPORATION.

Among the most extensive and important operations carried on by heat, is evaporation. By this process, the water furnished to our earth, is constantly performing the great designs for which it was created. All the water that falls in rain, and furnishes the Mississippi, the Amazon, the Danube and every other river upon the earth, with their supplies for the ocean, is again taken up by the combined agency of heat and air, to form new clouds, and again to water our planet, to give new life, vigor and beauty to all living things growing or acting upon its surface. The services rendered to man and beast by evaporation, are without number, and therefore cannot be named. They are occurring every moment of our existence; we therefore need more to be reminded than informed of them. I am at this instant reminded of its use, in the drying of the ink I am now using to write this sentence. If heat and air did not dry our manuscripts, the complaints of printers would be more bitter than at present, of bad copy and careless and slovenly authors.

The farmer depends upon this operation alone for drying his hay, and in removing the superfluous moisture from his plow-fields; the mechanic, in performing innumerable operations in his art; the housekeeper in drying her clothes, and in nameless other cases; and we may all be reminded of it, after applying water to our hands or face.

COMBUSTION.

The first time the infant witnesses the burning of a candle or the fire, he views it with intense interest, and is not satisfied with seeing, but is eager to learn its nature by feeling. Putting the finger into a candle is a chemical experiment we have probably all tried, and learned from it an important lesson. It is only because combustion is common, that it is ever viewed with indifference.

The uses of combustion, like those of evaporation, are too numerous to admit, and too common to need enumeration. We witness and experience them, every time we dispel from our dwellings, the darkness of night or the frost of winter. The thousands of steamboats accommodating almost millions of passengers, are moved by its power. Mechanics resort to it daily, and some of them constantly. Our hot coffee, roasted beef and rich puddings remind us of it.

A half century ago, the process of combustion, although so interesting and so important, was misunderstood, and the theory respecting it exactly wrong, or opposite to truth. And though it is now well understood and perfectly familiar and simple, the present occasion will not admit of an explanation. It may be given hereafter.

OXYGEN.

This is not perhaps a very common name, but the thing is more common than any other, with the exception of heat. It forms a large, and by far the most interesting part of our atmosphere, much the greatest part of water, a portion of every vegetable, from the oak to the mould upon bread, is essential to animal matter, is a part of every mountain and every particle of dust, is combined with most metals in their ores, gives pungency to acids, and an opposite power to alkalies.

In the atmosphere, it supports life, carries on combustion, changes metals into rust and paints, gives the beautiful colors to our dyes, bleaches our linens, carries on fermentation in yest, in bread, in beer and in wine, aids the farmer in preparing his soil, and performs innumerable other services for him, and every other living thing.

HYDROGEN.

Another uncommon name, but a very common thing. Except the substance last mentioned, it is the only ingredient which composes water, and is an essential ingredient in every animal, and vegetable substance. That and oxygen are almost the sole agents in producing a blaze, in the wood or coal fire, the candle, the lamp and the gas light. Although an ingredient in water, the common destroyer of combustion, when separated from its oxygen, it is itself highly combustible, and produces the combustion, by again uniting with its oxygen. It is the lightest of all known substances, and is hence used for raising balloons.

The process of separating hydrogen from the oxygen, which together compose water, is simple and easy. It is done by passing the vapor of water through a red hot iron

tube, or easier by putting iron fillings into water, and adding a little sulphuric acid.

NITROGEN.

What uncommon names for common things; and there is so much gin mixed with them—oxygen, hydrogen, nitrogen—and it would seem for a temperance society too much gin. But it is a very temperate kind of gin; especially the nitrogen, for its principal use in the atmosphere, of which it forms almost four fifths, is to temper down the oxygen, and prevent the violence and universal ruin which, but for its associate, it would produce to our earth.

Nitrogen not only constitutes the greater part of the air we breathe, but is an essential ingredient in all animal substances.

CARBON.

I have heard of Mount Carbon, in the coal regions in Pennsylvania. I suppose some chemist gave it that name, because the combustible substance in the anthracite coal, is almost entirely carbon. The bituminous coals contain a great deal of hydrogen, which you have just heard is combustible, and is almost always present where you witness a blaze. It is the addition of hydrogen that constitutes the principal difference between the bituminous and anthracite coals, which two classes comprehend all, or nearly all the mineral coals in use.

It has already been said, that oxygen and hydrogen enter into all vegetable and animal substances; and to the latter, nitrogen is added. The other ingredient which enters into both, is carbon. This constitutes a considerable part of wood, in all its forms, and when reduced to coal or deprived of its hydrogen, and a part of its oxygen, carbon is the principal ingredient. Carbon sometimes forms a part of rocks, and is one ingredient of all the limestone mountains, and every particle of limestone upon the earth.

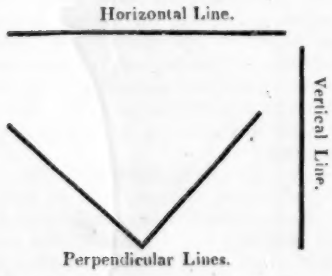
You see, then, that four of the most common things in the world, have rather uncommon names; and still it is highly desirable, and even necessary, amidst the present diffusion of knowledge, to become acquainted and familiar with them. Perhaps one reason why the names of these four elementary substances are not more common, is because they are seldom found separate, but almost always combined, and in so many different forms and proportions as to produce all the variety of animal and vegetable substances found in nature or the arts.

Sugar and starch, for example, are not only composed of the same ingredients, viz. oxygen, hydrogen and carbon, but in very nearly the same proportions. Hence the process of changing starch into sugar is not only practicable but easy, and is now carried on with great success.

These four substances, together with the metals, are so elementary, and constitute so large a part of the material universe, that they almost deserve to be called the alphabet of science. And certainly until those are familiar, we can hardly consider ourselves as having read the first letters in the great volume of nature.

GEOMETRY.

LINES.



Some persons, of great intelligence, appear to use the words vertical and perpendicular, as synonymous. There is probably about the same distinction between the meaning of these two words, as in quadruped and horse, tree and oak, or rock and granite.

Every vertical line is perpendicular, but every perpendicular line is not vertical. A line is vertical, only when it is perpendicular to the horizon, or to the horizontal line. Two lines may be perpendicular to each other, in any position in relation to the horizon.

All lines that form right angles with each other, are perpendicular, whether they lie in one position or another.

This distinction is not only plain, but important to be observed, to avoid confusion, even in the exact science of Mathematics.

As the first impressions made upon the minds of infants, are of the forms and shapes of objects around them, and one of their first propensities a wish to imitate, some of the first instruments proper to put into the hands of children, either for amusement or instruction, are the slate and pencil.

When a child can draw a vertical and horizontal line, he has learned an important lesson, and taken an important step in writing, in drawing generally, and in practical education. This children will do at a very early age, and with a degree of skill which will surprise any one who witnesses it for the first time. Slates and pencils are certainly more important than books for young children, whether at home or in school.

GEOLOGY.

ELEMENTS.

Silex constitutes the greatest part of soils, mountains, and precious stones. It composes the whole of chrystalized quartz, nearly the whole of common quartz, gunflints, jasper, agates, cornelian, topaz, calcidony, opal, and many other gems. The greater part of felspar, about half of mica, the same of hornblende and talc, is silex.

Sand banks are almost entirely silex, nearly the whole of sandy soils, and the greater part of all soils.

Silex is almost the only ingredient in glass of every description, much the greater part of porcelain, and a considerable part of earthen ware.

This was formerly supposed to be a simple substance, and is called one of the ten earths, the rest of which were also supposed to be simple. All the earths are now supposed to be compound bodies, and nearly all of them have been decomposed, and found to consist of oxygen, and peculiar metals, much lighter and more inflammable than other metals.

The metal of silex is called silicum, and the word silicious, as silicious soils, silicious minerals, &c., is dedived from silex.

The decomposition of the earths and alkalies, and the discovery of the metals entering into them, with the fact that oxygen was one of their ingredients, formed a new era in the history of chemical science, the credit of which is due to Sir Humphrey Davy.

Alumine, next to silex, is the most common, and perhaps the most abundant ingredient in the mineral kingdom. These two constitute almost the whole of soils, and of the most common rocks, such as granite, gneiss, mica-slate, roofing-slate, greenstone, porphyry, sand-stone, and others.

Silex and alumine appear to be the most intimate friends; they are certainly old associates. Their acquaintance must have been nearly six thousand years standing, at least. In most cases it is hard to separate them. Neither the plow, hammer, chisel, nor even fire, however much they may move them, break them, or heat them, appear to have much effect in producing a separation. They still cling together with as strong an attachment as when they were united in the first piece of granite that was formed before it was said, 'let dry land appear.'

Silex is recognized in beds of white sand, and alumine in banks of the whitest and purest clay, of which they constitute almost the whole.

The metal united with oxygen to form alumine, is called aluminum.

Lime, next to alumine, is the most common and most abundant of the ten earths. It constitutes all the marbles, the ledges and mountains of common limestone, and a considerable part of many soils. Limestone, however, contains about forty-five per cent. of carbonic acid, and is hence called the carbonate of lime. This acid is driven off in the common process of burning lime, when the remainder is called calcium, a metal, and oxygen. The words calcium and calcareous, are derived from calx, the Latin word for lime.

Magnesia is less common and less abundant than either of the three earths just mentioned, but much more so than any others.

More of these, and of geology generally in the future numbers.

AMERICAN GEOLOGY.

The Geology of America is admired by foreigners, for its simplicity and grandeur. Unlike that of the other continent, it exhibits the same or similar strata of rocks in extensive ranges, dividing our whole country into a few general divisions, which are presented and understood almost at a glance.

Nearly the whole of New England is what geologists call primitive country, consisting of rocks of the earliest formation, such as granite, gneiss, mica-slate, sienite, porphyry, primitive limestone and greenstone.

The western part of New England and the eastern part of New York, and a portion of the Aleghany mountains, is transition country, which consists of formations neither the oldest nor the most recent.

The western part of New York, and the country west of the Alleghanies, extending to the Rocky Mountains, is principally secondary country or recent formations.

GEOLOGY OF BOSTON AND VICINITY.

Hornblende rocks, or those containing more or less hornblende, are much the most abundant within twenty miles of Boston. Such is the Quincy granite, or more properly speaking, sienite, the black particles appearing in the Tremont House, Tremont Theatre, and most other buildings recently erected in the city, being the hornblende.

The rocks at Nahant, and at most other places in the vicinity, called greenstone, trap rocks and basalt, are composed almost entirely of hornblende. Granite, consisting of quartz, felspar, and mica, is found in great abundance not far from Boston, specimens of which are seen in the pillars of the U. S. Bank and of the Quincy Market.

SCHOOLS.

In the United States are more than 50,000 schools. Nearly all of them are taught in the course of the year by one gentleman at least. A large portion of them during the summer are taught by ladies. Including the ladies and gentlemen annually engaged as teachers in the United states, they will amount to seventy or eighty thousand: a large army. Under these teachers are probably more than three millions of children, now preparing to form the character and seal the destiny of a great nation. Upon the destiny of this nation will depend in no small degree the destiny of the world. The question, then, whether the school teachers in our country, are qualified or not qualified for their profession, whether their schools are well or not well taught, will in some measure determine the question whether the world will still continue sunk in ignorance, and degraded by vice, or be redeemed from its fallen state and rendered worthy of a race of intellectual and moral beings and of their Creator.

That something can be done towards raising the qualifications of this body of teachers to the character their profession requires, has been proved by numerous experiments. If every state should follow the steps recently taken by New York, and supply each school with a copy of Hall's Lectures to School Teachers, it would raise the character of all the teachers and all the schools in the country.

If a Lyceum should be formed in every town or every county in the Union, and teachers invited to attend their meetings and use for their mutual improvemnt the books and apparatus they might procure, nearly the whole of the seventy thousand teachers would be rendered more skilful in their profession, and the schools throughout the country raised in their character and extended in their usefulness.

If every school-room should be furnished with a cabinet of Natural History, or of *common things*, schools would be rendered more interesting and more useful. A few articles of apparatus in all the schools in the country, would afford them more and better and cheaper instruction.

A newspaper, or some periodical read and remarked upon daily in schools, would add greatly to their interest and intelligence.

School libraries, answering the same purpose to common schools, that Sunday school libraries do in their place, would be a great acquisition to common education and the general diffusion of knowledge.

If parents, especially mothers, should visit schools frequently, and show to teachers, and their pupils, that they were interested in their progress, it would add greatly to their efforts and improvement.

County conventions of schools, semiannually or quarterly, might be rendered equally attractive to children, with military musters and other public occasions, dissipating and unchristian in their tendency.

Specimens of penmanship, composition, needle work, mechanism, singing, Natural History, such as minerals and plants, and above all the children themselves, must form a collection which would enliven the dullest mind, and warm the coldest heart.

If children should be permitted to collect or contribute something weekly for the benefit of their school, as a present to their teacher or to another school, it would enlarge their hearts, by putting into practice the christian principle of doing good.

THE SCHOOL GLOBE.

A clergyman not long since, took an apple to show a niece of about sixteen something about the shape and motions of the earth. She had attended school most of her life, and studied geography several years, but had never before seen the shape or motions of the earth illustrated by a visible object. She looked with great earnestness at her uncle for a few minutes, and said with emphasis, 'Why uncle, you don't mean that the earth really turns round, do you?' He replied, 'Why Harriet, did you not learn that several years ago?' 'Yes, sir,' she said, 'I learned it, but I never knew it before.'

The result was, that he immediately sent to Boston and procured a small globe for each school in town; and he remarked, that they had paid for themselves many hundred times.

THE ARTS.

The general operations of mechanics or artists are to separate bodies, and again unite them, or change them into different forms. They resort to mechanical and chemical operations, both in separating and uniting bodies.

Some of the instruments for mechanical separation are, the hammer, saw, axe, knife, hatchet, chisel, shears, gouge, plane, lathe, auger, drill, punch, needle, stamp, grinding mills of many kinds, muller, plow, hoe, harrow peck, wedge, &c.

The instruments and operations for uniting bodies mechanichally, are the nail, bolt, screw, rivet, thread, twine, cord, rope, latch, hook, staple, link, button, glue, putty, wafer, sealing-wax, starch, paste, numerous cements, mortise, dovetail, groove and tongue, lapping and folding.

The chemical operations of separating and uniting, are frequently done in the same process. The same process of heating copper and zinc first dissolves each, and then unites or combines them, to form brass. The same process which dissolves gum copal, unites it with the spirit and forms varnish.

The chemical agents and operations for dividing and again uniting bodies, are almost innumerable, but some of the most common are heat, acids and alkalies, which produce fusion or melting, solution, welding, soldering, &c.

SOURCES OF POWER.

Gravitation, heat, and contraction of muscles, are the only sources of powe commonly resorted to, for mechanical operations in any of the arts of life.

The power of water arises wholly from gravitation; the earth draws the water upon the wheel which it moves, as it falls, carrying the wheel with it.

Power or motion gained by wind or steam originates with heat.

Animal strength originates in the singular power which all animals possess, of contracting their muscles at pleasure, and by that means moving their limbs or bodies in any direction, and applying the strength their Creator has thus given them to give motion to any machine, or to perform any operation they may choose or be directed to.

When the power is once gained, either from gravitation, heat, or animal strength, it can be applied with pleasure to the wheel, lathe, saw, loom, spindle, drill, carriage, boat, vessel, ship, plow, or any other instrument or operation necessary to keep in progress the whole circle of civilized and refined arts.

PRINTING.

Three kinds of printing, conducted upon different principles, are now extensively used in this art of arts. These are type, copper-plate, and lithographic printing. In types, the ink is applied to their most extended surfaces, when they are pressed on the paper to leave the ink in the form of letters. In copper-plate printing, the most extended surface of the plate is made perfectly clean, or free from ink, which is left only in the lines, indentations, and cavities formed by the engraver, into which the paper is forced by hard pressure to receive the ink.

The secret of lithographic printing is in the fact, that oil will unite with oil, and not with water. The lines, sketches or drawings, are first made on the smooth surface of the stone, (in Greek, *lithos*) a compact limestone, with ink, or crayon, containing oil. After the drawing is completed, and the stone placed in the press, it is sprinkled with water, which is spread by a sponge, and wets the whole surface of the stone except the drawing; that being made of oil, is not affected by the water. After the sponge follows the ink roll, many times repeated, which ink, being of oil, unites with the oil in the drawing, but does not touch the surface of the stone covered with water.

After the ink is applied, the impression is not obtained by the mere pressure of the type on the paper as in type printing, nor by applying a roll to it with great force, as in copper-plate printing, but by a scrape with a rounded edge, passing over a piece of leather, with great force, under which is the paper to be printed.

EXPERIMENTS.

CHEMISTRY.

A LADY took three or four leaves of red cabbage, and after bruising them, she poured a pint of boiling water upon them in a glass. After tea she placed three tumblers upon the table, which she one half filled with the water infused with the cabbage. Into one she poured some vinegar, which turned it red; into another some pearlash water, and it became green; into the third some alum water, which changed it to purple. The next day, her son and daughter, eight and ten years old, repeated the experiment much to their amusement and instruction.

A few days after, the same lady dissolved glauber salts in boiling water, until it was saturated, and filled a two ounce vial with it, corked it quite tight, and set it away until the water was cold, when it remained as liquid and clear as pure water; but on removing the cork, beautiful needle-shaped crystals shot through the water in all directions. The same water and vial was afterwards used by the children to repeat the experiment several times.

A few days since, a lad of ten years old put a teaspoonful of sugar of lead (acetate of lead) into a quart of water; after it had stood a few hours and become clear, he poured off the water into a glass jar, and suspended in it by a thread a piece of zinc as large as a walnut. The vinegar of the lead combined with the zinc, when the lead shot out in beautiful leaves resembling vegetation, which after two or three days descended to the bottom of the jar. It is called the lead tree.

INTELLECTS.

A few weeks since, a mother procured for a little girl eighteen months old, a set of children's bricks, (some blocks in shape of bricks) with pictures of about sixty different objects, such as animals, household furniture, &c. In two days the child learned the names of all the objects, which she showed by placing her finger upon them, as she could not talk. She also amused herself a great part of the time in piling her bricks, and carrying them from one place to another.

A little girl, of three years old, who attended an infant school and learned the geometrical figures, amused herself at home, with her bricks, by putting them together in various forms. She put three together, and said, 'there is a triangle;' she put four together and said, 'there is a square;' five, and called them a pentagon; six, and called them a hexagon; eight, and called them an octagon. Her mother asked her how many two blocks and one block were, and she said 'ten;' she asked her the second time, and she said 'five,' showing that she could not count three, notwithstanding much time had been spent in teaching her to count.

A little boy of nearly four years old, whose parents had spent much time in teaching him, was one evening playing with a kitten, when he was asked whose kitten it was. He replied, 'it is *my* kitten.' A gentleman standing by, said to him, 'is it not my kitten?' 'No,' replied the child with emphasis, 'it is not *your* kitten, it is *my* kitten.' The child said to the gentleman, 'take care, he has got teeth, he will bite you; he has got claws, he will scratch you.' Said the gentleman, 'how many eyes has he?' 'Three,' replied the child. 'How many feet?' 'Two.' 'How many mouths?' 'One;' showing that children are familiar with the names, properties, and uses of numerous objects, and have some idea of personal property, before they have any ideas of numbers.

MORALS.

A short time since, a sprightly, amiable little girl, three years old, who was playing about the room, hit her head against the corner of the table, which caused her to cry. Her mother, who is an intelligent lady, and wishes to pay great attention to the education of her little daughter, said, 'did the table hurt Ellen? naughty table; go and whip it; the table sha'nt hurt Ellen.' The child whipped the table, and received an important lesson in revenge.

A year ago, on the fourth of July, about twenty boys, in a neighboring town, were formed into a militia company, and furnished with uniforms, a powder-piece, &c. which cost their parents about ten dollars each. During a great part of the day, they were marching about the streets, with a fife and drum, making occasional calls at the tavern to appear before the bar and drink their rounds like men.

In another town, where a Lyceum was formed, the parents of thirty or forty children, organized them into a juvenile Lyceum, and aided them in carrying on various exercises for their amusement and instruction. At one meeting, a lad of ten years old presided, and a little boy of five years old explained to the meeting, on a map, the geography of the country where they resided; pointing out the situation of the several towns, streams of water, &c. For each of these children, who held their meetings once a week through the year, the price was one dollar, which was laid out in books, apparatus, &c.

AMERICAN FORESTS.

No part of the vegetable kingdom has so much grandeur or has suffered so much neglect as the American forests. No credit is due to the good sense or the science of Americans, from the fact, that until very recently, the best, and almost the only description we have had of our trees, was from the pens of two French gentlemen, by the name of Michaux, who examined the American forests, from Canada to Mexico, and not only the forests, but ship yards, work shops, and all other places where they would be likely to learn the properties and uses of the timber.

The result of their visit was, a work of great value and elegance on American forest trees, but too costly to be owned in families generally.

A substitute has, however, been recently furnished by Mr. Brown, editor of the Naturalist, published by WM. HYDE & Co., Boston, which does credit to the author and publisher. This is furnished at such a price as to admit it into every family, school and Lyceum.

The character of the work will but be seen by an extract.

LIVE OAK.

This species, which is confined to the maritime parts of the Southern States, the Floridas and Louisiana, is known only by the name of *Live Oak*. The climate becomes mild for its growth near Norfolk in Virginia, though it is less multiplied and less vigorous than in a more southern latitude. From Norfolk it spreads along the coast for a distance of fifteen or eighteen hundred miles, extending beyond the mouth of the Mississippi. The sea air seems essential to its existence, for it is rarely found in the forest upon the main land, and never more than fifteen or twenty miles from the shore. It is most abundant, the most fully developed, and of the best quality, about the bays and creeks and on the fertile islands, which in great numbers lie scattered for several hundred miles along the coast.

The live oak is commonly 40 or 50 feet in height, and from one to two feet in diameter; but it is sometimes much larger. Like most other trees, it has, when insulated, a wide and tufted summit. Its trunk is sometimes undivided for 18 or 20 feet, but often ramifies at half this height, and at a distance it has the appearance of an old apple tree or pear tree.

The wood is heavy, compact, fine-grained, and of a yellowish color, which deepens as the tree advances in age. The number and closeness of the concentric circles evince the slowness of its growth. As it is very strong and incomparably more durable than the best white oak, it is highly esteemed in ship building, and is consumed not only in the country which produces it, but still more extensively in the Northern States. [Fig. 1, a leaf. Fig. 2, the fruit.]

SCHOOL AGENTS SOCIETY.

A Society has recently been organized to procure and encourage travelling agents, in behalf of Schools and Lyceums. Three classes of agents or teachers are contemplated by the Society. The first is State agents, to attend the meetings of County Lyceums, and where such Societies are not established, to aid in their organization. At these county meetings, improved schools are to be described, various modes of teaching illustrated, apparatus exhibited and explained, and various measures instituted, in which the friends of education through the county, can co-operate for the universal diffusion of useful and practical knowledge among the people. Of these, one is needed for each State.

The second class, are agents for County Lyceums, who are to be circuit teachers, in Lyceums and Schools, for which they may be engaged. They are to meet each Lyceum weekly, or semi-monthly, to make illustrations and perform experiments in the sciences, exhibit and explain apparatus, suggest improvements in the management of schools and families; forward a co-operation between parents and teachers, and propose some studies or exercises for their pupils, during the time that intervenes between the meetings; aid in collecting Cabinets in Natural History, and in forwarding every other measure, calculated to diffuse knowledge, and bless society. Of these, one is needed in every six or twelve towns in New England, and several in many of the counties at the West and South, and one in every county. In the whole, several thousand could certainly be employed, most usefully, profitably and pleasantly, if the proper men could be found.

The third class, in whose behalf the society would be glad to act, is the teachers of common and other schools. The most direct and efficient mode by which their interests can be promoted, and their usefulness extended, is by attending the weekly or semi-monthly meetings of Lyceums already mentioned, and through them, by co-operating with State and county agents, the parents of their pupils, and the friends of education generally.

The first step in this important enterprise, is the organization of County Lyceums, to co-operate with the society, in securing the objects contemplated by the State agents. By a slight effort, a few individuals in every county in the Union, might secure to the agent, on his visit to them, a large meeting, and by it adopt measures which could not fail to improve their schools, diffuse knowledge among all their citizens, and aid in the great cause of enlightening and blessing the world.

Each individual to whom this notice is sent, is respectfully invited to co-operate with the society, in securing the objects it contemplates, by proposing a meeting for the organization of a County Lyceum, to make arrangements for the State or county agents, or in any other way to unite in a definite measure to promote an object, which is second to no one ever proposed or contemplated by man, viz. to enlighten, christianize and bless a fallen race of intellectual, moral and immortal beings.

The annual meeting of the society will be held in Andover, Mass., on the first Monday in August next, after which, arrangements can be made, by those who may wish to engage as agents, for a course of instruction and mutual exercises, at the Teachers' Seminary in that place.

This meeting, August 6, 3 o'clock, P. M., the friends of education, especially teachers, are invited to attend.

OFFICERS OF THE SOCIETY.

SAMUEL FARRAR, Esq., President.
S. R. HALL, Vice President.
MILO P. JEWETT, Rec. Secretary.
JOSIAH HOLBROOK, First Cor. Secretary.

Directors. — Rev. Professor Emerson, of Andover; Thomas Clark, Lowell; F. A. Barton, Andover; Reed Wilkinson; Osgood Johnson, Andover; W. C. Woodbridge, Boston; Rev. Milton Badger, Andover.

Corresponding Secretaries. — Rev. B. O. Peers, Lexington, Ky.; C. D. Bradford, Cincinnati, Ohio; Hon. Benjamin Park, Salem, Ia.; Rev. President Beecher, Jacksonville, Il.; Rev. Dr Nelson, Palmyria, Mo.; W. G. Hunt, Nashville, Tenn.; Rev. Dr Woods, Tuscaloosa, Ala.; Dr Butler, Fort Gibson, Mi.; Lucius C. Duncan, New Orleans, La.; Moses B. Levy, Pensacola, Fa.; Rev. Sereno Taylor, Augusta, Ga.; Rev. George Howe, Columbia, S. C.; Professor Gow, Washington, Pa.; A. Curtis, Preceptor, Richmond, Va.; Dr Thomas Sewall, Washington, D. C.; Samuel Smith, Wilmington, De.; James McGrow, Cecil Co. Md.; Milton Hall, Rhode Island; Rev. Mr Gale, Oneida Institute, N. Y.; Professor Olmstead, New Haven, Ct.; Professor Fowler, Middlebury, Vt.; Rev. Mr Farnsworth, New Hampton, N. H.; Peter A. Brinsmade, Augusta, Me. J. HOLBROOK, Chairman.

L. TENNEY, Secretary.

TO OUR PATRONS.

THE friends of education to whom this sheet is sent, are respectfully invited to render it their patronage by their subscription, and so far as convenient by contribution of materials for supplying its columns. Experiments or incidents, occurring in the physical, intellectual or moral world, calculated to illustrate the principles of matter, mind or heart, will be particularly valued.

Teachers, especially, are invited to examine this sheet, in relation to its furnishing, with the succeeding numbers, some reading exercises, and a medium of science and useful knowledge to their schools, and of co-operation and reciprocal interest between parents and teachers, and between schools and families.

All communications relating to this paper, may be made, for the present, to JOSIAH HOLBROOK, Boston.

TO EDITORS.

THE high satisfaction we received in the course of a tour of more than seven thousand miles during the last year in behalf of education, from the interest manifested by the editors of our puplic journals in all the states, has animated us with the belief that the American press may apply its power for the advancement of American education. And we believe they will pardon us if we invite their attention to the *definite measures* proposed by the American Lyceum for the advancement of this great and common object. We invite their attention particularly to the organization of County Lyceums throughout the Union, as the first step, towards effecting the numerous purposes contemplated by that institution and by the School Agents Society, recently organized for the special object of promoting by travelling agents and other means, the interest of schools and Lyceums.

TO CORRESPONDING SECRETARIES.

THE corresponding secretaries of the School Agents Society, will confer a favor upon an individual, and probably upon the cause of education, by forwarding to the Secretary in Boston the addresses of teachers and other friends of education in the states where they severally reside. If the addresses of all the teachers in the Union be given in a list, they would furnish great and important facilities in advancing the cause of schools. Their attention is also invited to the organization of county Lyceums in their several states, as the first and most efficient measure in which they can co-operate for the common cause, and which may be forwarded, perhaps, by correspondence with one or more known friends of the cause in each county.

A Convention of the Schools of Andover and vicinity will meet at Mr. Badger's Meeting House, at 11 o'clock, A. M. on Monday, August 6th, when appropriate exercises will be conducted by Mr. Hall and others.

MISCELLANEOUS.

SCHOOL CABINETS.

Since the commencement of the Teachers' Seminary at Andover, a large collection of minerals, and of other specimens in Natural History has been made, principally by Mr. Hall. The primary department of the school have a fine collection, made by themselves. They have voted to send a few of the elementary specimens of rocks to each of the schools in the county of Essex, and would like to exchange with school Lyceums in different parts of the country.

The New York and Boston school Lyceums have commenced an exchange of specimens, in Natural History and juvenile improvement.

Numerous primary schools in the vicinity of Boston and in other parts of New England, have furnished their school rooms with cabinets of Natural History, and are familiar with all the rocks and other useful minerals coming under their observation.

Some of the schools in Harrisburg, Pennsylvania, and many others in that State, have collections of minerals.

Some of the seamen from several different seaports, have engaged to bring home specimens of natural and artificial productions, for the use of Lyceums in our cities, and through them, for those of the country villages, who may be disposed to make exchanges.

Dr. Troost, professor of Nashville college, has a very large and complete collection of specimens of the Natural History of Tennessee, which he would be glad to exchange for those of other states, and other parts of the world.

The geological map recently published under the direction of the legislature of Massachusetts, if furnished to all the schools in the State, would aid them in collecting specimens; and these collections in turn would aid in completing the map, which is at present only an outline.

The geological society of Pennsylvania are taking measures to procure a cabinet of Natural History in every county, and eventually in every school in the State.

The description and view of the geological features of Nova Scotia given by Mr. Alger and Dr. Jackson, furnish an excellent model for others to follow, who are engaged in similar enterprises, and ought to be read by all the lovers of science.

The Louisville (Ky.) Lyceum has recently paid a premium of one hundred dollars for an essay on school keeping.

Experimental lectures are given by the lads belonging to Mr. Peer's school, Lexington (Ky.) at their examinations. A lecture on the moral effects of railways, was given by Dr. Caldwell, before the Lexington Lyceum, and several others on different subjects by the same gentleman.

The Nashville and Knoxville Lyceums, have published lectures on the resources of Tennessee.

Judge Hall and other distinguished gentlemen at the west, are giving lectures, weekly, before the Illinois Lyceum.

A member of the St. Louis Lyceum has written a history of that place, which he read to the society. It has since been published in the Illinois Magazine, conducted by Judge Hall.

The Jacksonville Lyceum has been attended, during the past winter, by three hundred persons, most of whom frequently walked a mile to the meetings, which were held a part of the time at the college. Many of the members travelled three or four miles.

The Legislature of New York have ordered 12,000 copies of Hall's Lectures on School Keeping to be purchased for the use of the teachers in that State. Mr. H. has prepared a volume for Female Teachers, which ought to be in the hands of every lady having charge of a school. If children should contribute two cents each to procure a copy of it for a present to their teacher, nearly every lady would be furnished with a copy, and the children have the blessing of giving, which is greater than that of receiving.

Mr. H. has also published a book on 'Common Things,' which ought to be a common book for all schools in the Union, if they are cautious to avoid his *k* and *u* in such words as music, valor, &c.

A CHILD four years old, attending a primary school, who was asked what she did at school, replied, 'I say A and B and set on a bench.'

Apparatus for *visible illustrations* in schools, has entirely changed their character in many parts of the country. It renders instruction more rapid, thorough, permanent and agreeable, and saves the expense of it many times by preventing the *wear* and *tear* of books.

Family Apparatus, which was completed but three or four weeks since, is already in use in five different States, and has been ordered from Virginia. It has a fair prospect of becoming a part of the furniture of a large majority of the families in the United States.

THE LYCEUM.

Lyceums are social, intellectual and moral institutions, and capable of being put in operation wherever there are social, intellectual, and moral beings. Wandering savages and benighted Africans, evidently possess social, intellectual and moral powers, which are and must be exercised and directed, either for the happiness or misery of themselves and others. Although the habits of the Indian or African, do not admit of their coming at once under the influence, or submitting to the rules of ordinary institutions for literature or science, they do admit of being instructed and entertained for an hour, on many subjects of an intellectual and moral character, by any person who understands their language, and has the necessary instruments to address their eyes as well as their ears. By taking advantage of the powers they already possess, to add to those powers, without an attempt to deprive them at once of their vagrant and wandering habits, an intellectual and moral operation might be commenced at once, in the mind of every American Indian, and native African, if agents could be found who understood their language, in sufficient numbers to travel through their territories, calling them together wherever they could be collected, to hear explained some objects of nature, (not letters) which would affect their senses and interest their minds.

But our object is not to show how the Indian or the African tribe can be civilized and christianised, though that would not be difficult, but to show how the Lyceum system, especially its social principle, can be applied for the benefit of both sexes, all classes, and all ages of the American Republic.

TOWN OR VILLAGE LYCEUMS.

A general Lyceum, provided with a building, apparatus, books and a cabinet of Natural History, is an object worthy the attention of every town and village of every State in the Union. Perhaps some may feel that the erecting of a building for a Lyceum, would be too great an undertaking for many, if not for most towns in the country. But perhaps if the subject is examined, it will be found, that as personal property, twenty-five or fifty dollars can in no way be more profitably invested than in a share in a Lyceum.

But without going into the nature or value of a share in a commodious and well endowed village Lyceum, as personal property, as public property, it may be asserted without fear of contradiction, that in nine cases out of ten, none can be so good. It would seldom fail of paying one hundred per cent. interest to any community, who should create a stock of one or two thousand dollars for the object. This it would do in gold and silver, besides a per cent. in virtue and intelligence, which cannot be calculated.

The idea of a cabinet of Natural and Artificial productions, deposited in every town and village through the country, aided by the collection and contributions of seamen already extensively interested in the object, and by a system of exchanges among the Lyceums, must be grateful to every one who places any value upon knowledge.

Towards furnishing all our towns and villages with cabinets of Natural History, much has already been done. Numerous cabinets are already collected, and much has been done by exchanges. It now only needs the combined efforts of the friends of useful knowledge in all parts of the country, to have, within a few months, a cabinet of Natural History, in nearly every village in the Union.

TEACHERS' LYCEUMS.

When a building with books, apparatus and other collections is provided, any class of the community to whom it belongs can be accommodated at general and special meetings. And no class, perhaps, would so soon spread out over the community the knowledge they should gain at the Lyceum as teachers. Every scholar in all the schools might be benefited by the instruction their teacher received at a Lyceum meeting, the next day after he attended it. Experience speaks on this subject. In some instances, every school in a town, or perhaps in a county, has been completely changed and greatly improved by teachers' Lyceums.

FARMERS' LYCEUMS.

The evenings of winter, bring to the farmer much leisure for the improvement of his mind; and few, perhaps, can derive greater advantages from mutual intercourse of an intellectual character.

By the aid of books, apparatus for trying experiments on the various substances collected in Lyceums, not only their minds, but their farms might be enriched. How could the practical farmers throughout our country, living in the same vicinity, spend one evening in a week more pleasantly or profitably, than in a social meeting at a Lyceum, where they could make known their experiments, compare their views and experience with the opinions of authors, whom they might consult from the library, try experiments relating to their employment, and otherwise instruct and animate each other?

MERCHANTS' LYCEUMS.

Mercantile associations have been formed to great advantage in many of our cities. Before these associations, lectures have been given on mercantile law, and other subjects connected with the business of the merchant.

Such associations must be much stronger, more permanent, and better furnished with the means of mutual improvement, by a connection with a general Lyceum, by having the use of their library, apparatus, &c, than if they were pefectly independent. Like the other branches, besides attending the general meetings and hearing lectures on general science, fitted to both sexes and all classes, they might hold special meetings, and have special instruction particularly designed for themselves.

MECHANICS' LYCEUMS.

It is a credit to our country, that mechanics have done so much for the diffusion of knowledge. Lyceums have never been more prosperous, than when in their hands. With the aid of generous accommodations which might be provided by general Lyceums, in all our towns, they would be able and disposed to do much more for the cause of science and the cause of their country.

LADIES' LYCEUMS.

During the summer, ladies have in many instances used the accommodations provided by Lyceums, for their own benefit and the benefit of the community. By meeting female teachers with some of their eldest pupils, and other misses and young ladies, once a week at the Lyceum, where they can find much to interest and instruct, they have excited a general spirit of improvement in their schools, and secured to them many friends and many patrons. The successful and the persevering efforts now made by ladies, both in works of benevolence and the cause of education, constitutes one of the happiest and most animating features of this singular and interesting age of the world.

MOTHERS' LYCEUMS.

The dignified office, the holy charge and the high responsibilities of a mother, are every day more duly appreciated, and more deeply felt. When they have attached to them all the importance, all the power and all the dignity which is justly their due, we shall have opened to us new prospects, and presented to us a new, a better, a holier, world.

Perhaps no class of the community, can benefit themselves and the world so much by mutual efforts, as mothers. None more need the views, the experience and the counsel of each other. None would perhaps be more eager to learn or more ready to profit by even a hint which should be thrown out, than those who have committed to their charge those tender buds, which their fond hopes would inspire them to believe are destined to bloom, flourish and bear fruit in eternity.

Where can mothers find so much to encourage and strengthen their mutual efforts, as at the Lyceum, with juvenile and infantile books, its apparatus and specimens of nature, always animating and always instructive to children?

SOCIAL LYCEUMS.

It may well be doubted, if the social, the intellectual, the refined, the amiable and the moral faculties of our nature have ever been more beautifully blended, or more happily exhibited, than in some small circles of ladies and gentlemen, associated for the double purpose of social intercourse and intellectual improvement. Free from the empty ceremony and the heartless compliments of fashionable parties, and the restraint and formality of large assemblies, they enjoy all the advantages of the one, without the evils of the other. They are sufficiently free and unrestrained to be social and animated, and sufficiently formal to confine the conversation within certain limits, and to render it in the highest degree entertaining and instructive.

Such societies are usually branches or departments of larger and more general Lyceums, which, by the interest they excite, give them existence, and the facilities they afford by their rooms and collections, increase their energy and usefulness.

SEAMENS' LYCEUMS.

It has already been remarked, that seamen are extensively engaged in making collections and contributions for the cabinets of Lyceums. By efforts to co-operate in the great cause of education, they may provide for themselves a place of resort and instruction in every port. An arrangement may be made by the Lyceums in all our sea-ports, not only for a place of resort and deposit for the collections they shall make, but for regular courses of instruction to young seamen, calculated to enlighten their minds, elevate their characters, and fit them for their pursuits.

Aboard our navy ships are from five hundred to a thousand men, all possessing social, intellectual and moral powers, destined to exist, and to thrive or languish through eternity. The question whether anything can be done to bring into exercise and give direction to these immortal powers to fit them for immortality, comes home to every philanthropist and every patriot.

JUVENILE LYCEUMS.

It may well be doubted if the powers of children are yet understood. No one can pretend that their amusements are properly regulated, or that their propensities and dispositions so directed and trained, as to afford them the highest gratification, or to produce the most elevated characters.

Certain it is, that when intellectual amusements have been provided for children, they have been preferred to all others. Their dancing schools have been given up of choice, that they might take a part in Lyceums. The harmony of a juvenile concert is more grateful to the ear, and more animating to their feelings, than the noise of a training band or a military muster.

As branches of general Lyceums, those composed of children have in many instances been conducted with the highest success. Lads ten or twelve years old have presided, and those of one half that age have given instruction at their meetings.

If everything else fails to afford entertainment to a Lyceum for adults, that will succeed.

LYCEUM SEMINARIES.

Self-educating, self-supporting, and manual labor schools, have full possession of public confidence and a strong hold of public feeling. Facts have fully proved, that such accommodations may be provided as will enable lads and young men to procure a better education by their own industry, than money can possibly purchase for them. After gardens, workshops, books, apparatus and teachers are provided, the rest is to be done by the pupils themselves.

The time is come when a Lyceum Seminary, or self-supporting school can be sustained, and is called for in nearly every one of the thousand counties in our Union. This may, and ought to be, the work of County Lyceums. These institutions are already established in great numbers, and by increasing their number and their energies, they may evidently diffuse light and promote virtue in every county, village and family, in our republic.

County Lyceums.

A Lyceum seminary, an itinerating or circuit library, a county cabinet of Natural History, a system of circuit teaching, under one or more district professors, or experimental teachers, who should visit several towns or neighborhoods in succession, the introduction of apparatus and various other improvements into schools, raising the qualification of teachers by weekly meetings in towns, and semi-annual or quarterly meetings in counties, the procuring of town and county maps and histories, and a general interest and co-operation for the advancement of schools and the general diffusion of knowledge, might be easily and readily effected by the friends of education in any county, who would organize themselves into a Lyceum, and combine and concentrate their efforts for the purpose.

The great importance of this step, and the vast magnitude of the objects to be effected by it, suggest the expediency of specifying a particular day for the meeting of the friends of education at the county seat of each county in the Union, to organize a County Lyceum, or to effect the objects contemplated by them when they are already organized.

We therefore beg leave to propose the second Wednesday in September next, for the meeting of teachers and the friends of education generally in each county in the Union, for organizing a County Lyceum and taking any other measures for improving the intellectual and moral condition of their citizens, and for co-operating with the friends of knowledge and religion throughout the world.

TO THE CLERGY.

As no class of the community are, as a body, so warm friends, or so able patrons of schools and of knowledge, as the clergy of every denomination, their attention is particularly invited to the *specific objects* and *definite* measures contemplated by the American Lyceum and the School Agents' Society. The clergy of the methodist denomination, who are very numerous, are most favorably situated, to forward the system of *circuit teaching*, which is considered by both these societies as the most efficient means of effecting the objects they have in view.

And as it is most gratifying to find, that the clergy of all denominations, with hardly an exception, unite most cordially and heartily in promoting the great and common object of universal education, it cannot be doubted, but in the organization and management of County Lyceums, nearly every clergyman in every county in the Union, would give his approbation and his efforts. Nor can it be doubted, that if they should unite in procuring education conventions on the second Wednesday of September, their efforts would be crowned with the happiest results to the present and to future generations.

TO POST MASTERS.

If Post Masters, especially those at the west and south, would forward to the secretary of the School Agents' Society, who resides in Boston, the addresses of teachers and other active friends of schools, and the titles, officers, operations and results of literary and scientific associations, in their several counties or vicinities, they would confer a valuable service upon the cause of *American Education*.

APPARATUS
FOR
FAMILIES, SCHOOLS AND LYCEUMS.

CARTER & HENDEE have for sale, sets of Family Apparatus, for the instruction and amusement of children. It is found to be far more amusing to children than the common toys, and at the same time affords a constant exercise for the improvement of their minds. It also prevents contentions among children, by enabling them to amuse and instruct each other, relieves mothers and avoids expense.

C. & H. also keep the School Apparatus, which is already extensively introduced into schools in all the States, and School Globes separate.

Also, Lyceum Apparatus, designed to make illustrations and perform experiments in Natural Philosophy, Astronomy and Chemistry.

They keep also, Geological Specimens, to illustrate the common rocks and other useful minerals.

Scientific Tracts, designed for the instruction and entertainment of schools, families and lyceums, are published by C. & H. 24 numbers in a year — price $1,50.

The several sets of Apparatus and the Tracts, are designed to aid each other, and to forward the co-operation of parents, teachers and the friends of education generally, in the improvement of schools and the diffusion of knowledge.

T. CLAXTON, No. 23, Water-street Boston, informs the public, that he continues to make and keep for sale, Air Pumps, and Models of Steam Engines, of various kinds. Also, Mechanical Powers, and several other articles for illustrations in the science of Mechanics, Hydraulics, &c. As they are of different sizes, persons may select those most appropriate, whether for Schools, Academies, or Colleges.

Also, on commission, Orreries, the clock work of which is moved by a spring.

BOOKS, &c.

THE SYLVA AMERICANA, or a description of the Forest Trees indigenous to the United States, practically and botanically considered. Illustrated by about one hundred and thirty engravings. By D. J. Brown, editor of the Naturalist.

CONVERSATIONS ON THE ANIMAL ECONOMY, designed for the instruction of youth. By Isaac Ray, M. D. This valuable work is used in many of our most reputable High Schools and Academies.

For sale by WILLIAM HYDE & Co. at the Boston Bookstore.

For Sale by ALLEN & TICKNOR, corner of Washington and School Streets.

The AMERICAN FRUGAL HOUSEWIFE, dedicated to those not ashamed of economy. By Mrs Child, author of Hobomok, &c.

The MOTHER'S BOOK, by Mrs Child, author of the Frugal Housewife, &c.

LADIES' FAMILY LIBRARY, Vol. I., containing Biographies of Madame de Stael and Madame Roland. By Mrs Child, author of the Mother's Book, &c.

FIRST BOOK OF THE FINE AND USEFUL ARTS, for the use of Lyceums, &c. By Marshal S. Perry, M. D.

GEORGE W. LIGHT & Co., 3 Cornhill, continue to publish

THE ESSAYIST, a Young Men's Magazine, published monthly, and devoted particularly to the interests of young men. The editor is assisted by the Young Men's Association for the Promotion of Literature and Science. Price $2 a year.

THE YOUNG MECHANIC. One of the chief objects of this work is, to induce young mechanics to read, write, and think more upon sciences which have an immediate bearing upon their own occupations, as well as upon the arts and sciences in general. Price $1 a year, in advance.

THE FAMILY LYCEUM,
Will be published weekly, at Two Dollars a year, in advance. Six copies for ten dollars.